



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,339	08/14/2001	Tokuju Oikawa	2870-0171P	6675

2292 7590 05/03/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,339

Applicant(s)

OIKAWA, TOKUJU

Examiner

Thorl Chea

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16, 18-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese Patent NO. 112072 (JP'072).

The JP'072 discloses a photothermographic material contains a compound of formula (1), (2) and (3) in condition (I) and the compound of formula (II) claimed in the present claimed invention. See claims 1-4; paragraph [0098] to [0100] and Table-1 in paragraph [0285]. The samples 12-14 contain NaOH as pH modifier. Thus, the samples contain no NH_4^+ which is within the scope of 0.06 mmol/m² claims in the present claimed invention; the samples 6-11, 18-25 contains ammonium hydroxide which meet the limitation in condition "do not substantially contains" ammonia (i.e. NH_3). Therefore, the invention as claimed lacks novelty. Alternatively,

Art Unit: 1752

it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to a known acid or base discloses in JP'072, paragraphs [0098] to [0100] to adjust the film surface pH of 5.5 or less to provide an invention with similar pH. The results presented in Table 1, [0285] shows low Dmin, sufficient shelf life in which Dmax is high. The worker of ordinary skill in the art would have to a base or an acid to control the film surface pH within this range with an expectation of achieving a material with highly improved fogging, low Dmin and high Dmax.

4. Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent NO. 112072 (JP'072) as applied to claims 1-16, 18-20 above, and further in view of Ito et al and EP' 1096310. Ito et al in column 82 lines 16-30 discloses phosphorus oxide-derive compound as contrast enhancer for a photothermographic material. See also EP'310 on page 79, claim 8, and the control of film surface pH on page 52, paragraph [0200].

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the phosphorus oxide-derive compound taught in Ito et al and EP'310 as contrast enhancer for the material of JP'072, and thereby provide a material as claimed.

Response to Arguments

Applicant's arguments filed February 12, 2004 have been fully considered but they are not persuasive because of the reason set forth in the office action on March 14, 2004. The JP'072 discloses a photothermographic material containing the compound of formula (1) to (3) and the formula (A) claimed in the present claimed invention. The applicants' argument is base on the amount of the NH_4^+ content in all layers formed on the image-forming layer side of the support is 0.06 mmol/m^2 or less in condition I and film pH of the image forming layer side of the support

Art Unit: 1752

is substantially unchanged after coating. JP'072 such as on page 43 discloses the use of NH_4OH as pH modifier to regulate the pH within the range presented in the claimed invention and shown presented in Declaration on May 11, 2004. JP'072 may not specifically disclose the amount of the NH_4^+ of 0.06 mmol/m^2 claimed in the present claimed invention or whether the pH is substantially unchanged after coating as claimed. However, the worker of ordinary skill in the art would have determined the amount of NH_4OH to provide the pH taught in JP'072. Also, it would have understood by the worker of ordinary skill in the art that the pH of the material of JP'072 is at least constant right after coating. Supposedly, JP'072 does not disclose the amount of the NH_4^+ of 0.06 mmol/m^2 claimed in the present claimed invention in condition I, the material as claimed is at least found prima facie obvious to the worker of ordinary skill in the art due to the use of NH_4OH as pH modifier. Moreover, the NH_4^+ is a by-product related to the pH modifier of from the by-product of the process of forming a binder such as polymer latex such as shown in the Declaration on May 11, 2004. Thus, the NH_4^+ is considered as by-product or impurity related to the process of controlling the pH of photothermographic film or to the process of forming binder. The utility of the NH_4^+ in providing the advantage thereof over that of the prior art appears to be lacking. The worker of ordinary skill in the art would have expected that product which differs from the prior art only its purity is obvious when the pure product possesses unexpected properties not possessed by the impure one. Ex parte Steelmand 140 USPQ 189; Ex parte Gray 10 USPQ 2d 1922, 1925 (BPAI 1989).

With respect to the Declarations provided in the argument, the Examiner's position remains unchanged for the reason set forth in the previous office action and incorporated in this action such as shown below.

Art Unit: 1752

The Declarations under 37 CFR 1.132 are irrelevant to the rejection under 35 USC 102. “(E)vidence of secondary considerations, such as unexpected results or commercial success, is irrelevant to 35 U.S.C 102 rejections and thus cannot overcome a rejection so based. In re Wiggins, 488 F.2d 538, 543, 179 USPQ 421, 425 (CCPA 1973). The amount of 0.06 mmol/m² or less encompasses the range of 0. to 0.06 mmol/m² and this amount is inherent to the type of acid or base used in controlling the pH surface taught in the ‘072 document. The pH of the material in Table 1 of the ‘072 document is asserted to be relatively constant in the absence of showing otherwise. It would have been understood by the worker of ordinary skill in the art that the surface of the film pH should be maintained within the preferred range of less than 5.5 disclosed in ‘072 document, [0098] to [0099] to maintain the material in good condition.

The Declaration under 37 CFR 1.132 on May 11, 2004 is irrelevant to the material taught in the publication number 2000-112072, but to the US Patent No. 6,110,022 and US Patent 6,165,707. See the statement on page 2 of the Declaration.

The condition I in claim 1 is directed to the use of the compound of formula (1) to (3) and the NH₄⁺ in all layers formed on the image forming side of the support is 0.06 mmol/m² or less, and the condition II is the film pH of the image-forming layer side is substantially unchanged after coating in combination of formula (A), and nucleating agent.

The publication number 2000-112072 discloses the compound of formula (A) to provide a heat developable material with low fog, high maximum density and less liable to the rise of fog in preservation by using a latex of a specified polymer; the compounds of formula (1) to (3) are nucleating agent used to improve the contrast of the image of heat developable material; the pH of the heat developable is 6 or less. See abstract, paragraph [0013] to [0019], Table 1 in

Art Unit: 1752

paragraph [0285]. Publication number 2000-112072 used the ammonium to control the pH of the material to provide the pH of less than 6.8 and the material provide Max as high as 4.7 and Dmin as low as 0.12. The values of Dmin and Dmax are better than those presented in the Declaration.

The amount ammonium ion presented in the claimed invention is considered as inherent product form the process of formation of polymer latex or ammonium hydroxide use to modify the pH of the material. It provides no beneficial property to the claimed material. There is no different in results between the latex taught in the prior art of record such as shown in Table 1 of the publication number 2000-112072. Also, the worker of ordinary skill in the art would have maintained the pH value within the range exemplified such as taught in Table 2 of the publication number 2000-112072 to provide the material with Dmin and Dmax shown therein.

The applicants argue in the Declaration that "SBR latex used as binder for image-forming layer in Example 1 described in the present disclosure of the present application, has glass transition of 17 °C, was prepared by polymerization using $K_2S_2O_8$ as polymerization initiator, and does not contains NH_4OH modifier". However, the applicants do not claim the latex or any type of initiator presented in the argument.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1752

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tchea *tin*
April 26, 2005

Thorl Chea
Thorl Chea
Primary Examiner
Art Unit 1752